

THE ANNALS

AND

MAGAZINE OF NATURAL HISTORY.

[THIRD SERIES.]

“..... per litora spargite muscum,
Naiades, et circum vitreos considite fontes :
Pollice virgineo teneros hic carpite flores :
Floribus et pictum, divæ, replete canistrum.
At vos, o Nymphæ Craterides, ite sub undas ;
Ite, recurvato variata corallia trunco
Vellite muscosis e rupibus, et mihi conchas
Ferte, Deæ pelagi, et pingui conchylia succo.”
N. Parthenii Giannettasii Ecl. 1.

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I.—*Outline of the Geology of the Maltese Islands*, by Dr. LEITH ADAMS, of the 22nd Regiment; and *Descriptions of the Bra-chiopoda*, by THOMAS DAVIDSON, Esq., F.R.S., F.G.S. &c.

[Plate I.]

THE Maltese Islands run from north-west to south-east; their long axis, including the intermediate channels, does not exceed twenty-nine miles. Malta, the most southern of the chain, is seventeen miles long by nine miles broad. Comino is two miles long by one in breadth; and Gozo, the most northern, is nine miles in length, with a breadth of about five miles. All the islands belong to one series, and, according to the latest re-searches, are to be considered portions of an early Miocene equivalent to the Hempstead beds in England*, and of the middle Tertiaries of the south of France, north of Italy, Doberg bei Bünde in Westphalia, and the Urchin-beds of Bonifacio and elsewhere in Corsica†.

The formations are sedimentary and marine, with a horizontal stratification, and are all conformable. The greatest thickness of the deposits equals nearly 800 feet above the sea-level. The

* Prof. E. Forbes, Proc. Geol. Soc. vol. iv. p. 232.

† Wright, on Fossil Echinodermata of Malta and Gozo, 'Ann. & Mag. Nat. Hist.' vol. xv., 1855.

dip runs from about north-east to east north-east, submerging the lowermost bed, which, on the opposite coast-line, rises fully 300 feet above the sea-level. The inclination is in a line with the Apennines and Sicilian range from the Val di Noto to Talizyi. Indications of great disturbances are shown by five great faults, four of which run in a transverse direction and parallel with one another. The most extensive downthrow traverses the entire breadth of Malta. The remaining fault proceeds in a north-west and south-east direction. There are, besides, local sinkings; and ancient sea-levels are apparent in several situations.

The mineral deposits arrange themselves, from the sea-level upwards, in the following order:—

5. Lower Limestone.
4. Calcareous Sandstone.
3. Marl.
2. Sand.
1. Upper Limestone.

The *Upper Limestone*, *Sand*, and *Marl* beds have been completely denuded for the eastern half of Malta and the south and north-western portions of Gozo.

The *Lower Limestone* varies in colour and mineral consistence, being either compact and semicrystalline, almost amounting to a variegated marble, of a cream-colour, and commonly known as "Gozo marble," or a white, coarse, open-grained rock, containing hard rounded nodules, simulating an oolitic grit. On the south-west coasts of Malta and Gozo, the Lower Limestone attains a height of 300 feet above the level of the sea. A few of its fossils seem peculiar to the bed, but the majority range upwards, and many throughout the entire series. Casts of a gigantic *Conus*, *Terebratula minor*, *Thecidium Adamsi*, together with *Scutella subrotunda*, *Operculina complanata*, an *Orbitoides*, &c. have as yet been met with only in the Lower Limestone and point of transition between this bed and the Calcareous Sandstone. Among the other organic remains common to the above and superincumbent beds may be mentioned bones of Cetaceans, teeth of *Carcharodon*, *Diodon*, *Myliobatis*, and Pycnodont fishes, several species of *Pecten*, *Ostrea*, *Echinus*, and *Cidaris*, &c.

The *Calcareous Sandstone* is granular, and not crystalline, in texture; the particles are minute, and evidently held together by the combined force of cohesion and pressure. The Lower Limestone passes into a white freestone, the latter into a light fawn-coloured rock traversed by a band of irregular-shaped horn-coloured nodules, which are firmly cemented together. Abundance of Mollusca, chiefly belonging to *Pecten*, are strewn

about among the nodules. This variety soon passes into a soft pale-coloured freestone, characterized by its disposition to split up into fragments: it contains rounded masses and bands of chert. The second nodule-bed passes through the centre portion of the deposit. The nodules are not so large as those already mentioned, and present a green colour externally, have an earthy fracture, and often contain portions of the fossils common to the bed, as if they were hardened portions of clay*. Although usually seen in bands of from 1 foot to 18 inches in thickness, these nodules may be met with in detached groups or strewn irregularly throughout this portion of the bed. The third seam of nodules, upwards of 10 feet in thickness, overlies the pale-coloured variety. It is the most extensive and fossiliferous of all the nodule-seams, and so loosely bound together as often to present the consistence of a gravel. The nodules are all more or less rounded, and seldom of large size. Bones (chiefly ribs) of Cetaceans are very common. It was in this bed that the teeth of the *Zeuglodon* were first found. A new species of *Phoca* was also lately discovered by the author. Prof. Owen has named it *P. rugosidens*. There are, besides, abundance of teeth of upwards of nine species of *Squalæ*, including the great-toothed shark, *Carcharodon megalodon*. Single specimens of the teeth of this fish have been discovered measuring $6\frac{3}{10}$ and 7 inches at their longest side. As usual, among the Mollusea the *Pecten* is the most common form. Among the Brachiopoda, *Terebratulina caput-serpentis* is sometimes found, and *T. ampulla* or *T. sinuosa*, Broechi; but neither are by any means common in any portion of the Calcareous Sandstone. Casts of a Pteropod of the genus *Hyalea*, of the size of a small pea, are very common, not only in the nodule-beds, but throughout the deposit. The Echinodermata are well represented by abundant remains of species belonging to *Heniaster*, *Schizaster*, *Spatangus*, &c., all which have been described by Dr. Thomas Wright, F.G.S.†

The pale-coloured variety of the Calcareous Sandstone is the most extensive portion of that bed: it is overlain by a reddish fawn-coloured sort, with a fourth nodule-bed about halfway. The same fossils are met with, including two beautiful *Scalariæ*. Nodules of iron in the form of peroxide, or, what are more common, hollow masses containing a coating of sulphur, are strewn in abundance throughout this portion of the deposit. The average thickness of the Calcareous Sandstone is fully 200 feet. It forms the surface-rock of nearly one-half of Malta and the south and south-western portions of Gozo. The transition

* The nodules have not been chemically examined.

† Ann. and Mag. Nat. Hist. ser. 2. vol. xv.

from this bed into the *Marl* is not so gradual as in the other deposits, forming often an abrupt line of demarcation between the reddish-yellow freestone and the loose clay. The latter bed varies in thickness: in the island of Gozo it is well developed, where often a thickness of from 40 to 50 feet is discernible; in other situations it thins out to a few feet. The fossil remains of the *Marl* are apparently not so numerous or so well preserved as in the other formations. Casts of shells are common, and often incrustated with iron, which, in the same form as just described, strews the bed in great abundance, together with quantities of lamellar gypsum. The *Marl* is a grey or drab-coloured clay, more or less tenacious, with lighter-coloured bands running horizontally throughout the bed. Passing upwards, we find a gradual passage into the *Sand-bed*, which is composed of a black or green-grained glistening sand, intermixed with grey-coloured calcareous particles or a reddish sand; the latter is at once characterized by the enormous numbers of the little foraminiferous shell *Heterostegina depressa*, which is met with in great abundance throughout this bed and the lower part of the one above it. The thickness of the *Sand-bed*, like the last, is very variable. In Gozo cliff, sections of 50 feet in thickness are not uncommon; but on the south-west coast of Malta it seems to thin out to a few feet. The fossils of the *Sand-bed* are both numerous and very well preserved. Teeth, bones, &c., of *Delphinus* are common. The *Squali* are well represented. Among the Mollusca, beds of *Ostrea Virleti* and *O. Deshayesii* are common; also beds of *Terebratula ampulla*, var. *sinuosa*, Brocchi, and *Megerlia truncata*. Among the Echinodermata, *Clypeaster altus* and *C. marginatus* are very common.

The passage from the *Sand-bed* to the *Upper Limestone* is usually gradual; sometimes it merges into a red- and black-grained Sandstone (i. e. *Heterostegina*-bed), then into a red or white limestone abounding in Corallines and characterized more or less by the quantities of *Rhynchonella bipartita*, *Terebratula ampulla*, var. *sinuosa*, and *Argiope decollata*. The last-named variety usually passes into a white calcareous sandstone, either compact or soft and porous, but always abounding in casts of *Pecten*, *Trochus*, *Arca*, *Haliotis*. The upper portion of this bed is usually an open-grained coarse rock, containing fissures and cavities lined with calcareous incrustations. The absence of the *Squali* from the middle and upper parts of the *Upper Limestone* we have repeatedly remarked; whereas such Echinoderms as *Brissus latus*, *Brissopsis Duciei*, and *Clypeaster Redii* have been hitherto only met with in this bed.

The thickness of the *Upper Limestone* varies; its average is calculated at 100 feet; but some portions far exceed that mea-

surement, and, considering the amount of degradation and denudation to which its surface has been exposed, the average here given is perhaps far under the original thickness of the deposit.

Description of the Brachiopoda.

By THOMAS DAVIDSON, F.R.S., F.G.S. &c.

Some short time ago, Dr. Leith Adams, who has devoted three years to the careful study of the geology of the Maltese Islands, forwarded for my examination and description a very interesting series of the Miocene Brachiopoda he had been able to assemble, which, I believe, may be referred to the following seven species:—

	I.	II.	III.	IV.	V.
	Upper Limestone.	Sand-bed.	Marl.	Calcareous Sandstone.	Lower Limestone.
1. <i>Terebratula sinuosa</i> , Brocchi (perhaps a variety of <i>T. ampulla</i>)	*	*	*	*	
2. <i>Terebratula minor</i> , Philippi (perhaps a small variety of <i>T. vitrea</i>).				*	*
3. <i>Terebratulina caput-serpentis</i> , Linn.				*	
4. <i>Megerlia truncata</i> , Linn.	*	*			
5. <i>Argiope decollata</i> , Chemnitz	*				
6. <i>Thecidium Adamsi</i> , Macdonald.				*	*
7. <i>Rhynchonella bipartita</i> , Brocchi	*				

Of these seven species, four (nos. 2, 3, 4, & 5) are also found recent in the Mediterranean.

In 'The Geologist' for December 1862, I described and figured (pl. 24. fig. 19), under the denomination of *Waldheimia Garibaldiana*, a very fine new species which Mr. Etheridge assures me he had received from Malta; but, as not a trace of this shell has been discovered in that island, it will not be reproduced in the present paper. Through the kindness of M. Michelotti of Turin, Prof. Meneghini of Pisa, and Prof. Sequenza of Messina, I have been able to compare our Maltese specimens with those found in formations of a similar age in Italy, and am also indebted to those gentlemen for much interesting information in connexion with their local distribution*.

* Several British palæontologists are at present engaged in the study of Maltese Miocene fossils. Dr. Wright has prepared a valuable memoir on the Echinodermata. Mr. Rupert Jones has published an interesting account of the Foraminifera in the April (1864) Number of 'The Geologist,' wherein much valuable information will be found; and I am moreover informed that the Bryozoa and Corals will be shortly published.

1. *Terebratula sinuosa*, Brocchi, sp. Pl. I. figs. 1-7.

Anomia sinuosa, Brocchi, *Conchiologia Fossile*, vol. ii. p. 468 (1814), and (for figure) Brugnière, *Encyclopédie Méthodique*, tab. 239. fig. 3 a, b (1789).

Sp. char. Shell ovate, longer than wide, greatest width towards the middle; valves almost equally deep, uniformly convex from the beaks to about the middle of the shell, after which the dorsal valve becomes more or less prominently biciplicated, with a sinus separating the two rounded ribs. In the ventral valve, a more or less apparent median elevation is margined by depressions or grooves of greater or less depth, and which correspond with the median sinus and ribs of the opposite valve; lateral marginal line forming a gentle and regular curve, which becomes more or less biciplicated in front. Beak rounded, incurved, and truncated by a large circular foramen, which is partly margined by a concave deltidium; beak-ridges distinct only in the contiguity of the foramen. Surface smooth, marked only by concentric lines of growth. In the interior of the dorsal valve there is a very short simple loop, not much exceeding a fourth of the length of the valve, and confined to the posterior portion of the shell: this loop is attached by its crura to the hinge-plate, the two ribband-shaped lamellæ being soon united by a transverse lamella bent upwards in the middle. Shell-structure punctured. Proportions very variable: a large specimen measured in length 3 inches, width 2 inches 7 lines, depth $1\frac{1}{2}$ inch.

Obs. It is exceedingly difficult to specifically discriminate between some of the many biciplicated *Terebratulae* which occur so abundantly in the Jurassic, Cretaceous, and Tertiary formations; and I must admit that it would be impossible for me to find words wherewith to distinguish the shell under description from certain allied forms which occur in the above-named formations*.

* I have seen and possess several examples of *T. perovalis*, *T. intermedia*, *T. biciplicata*, Sow., &c., which, although in all probability specifically distinct, agree very closely in external form with some examples of *T. ampulla* and *T. sinuosa*. Nor will it be out of place to remark that many specimens of *T. sinuosa* from Palazzo in Tuscany do exactly agree in size and shape with Brocchi's description and figure of *T. biciplicata*; and we should have felt disposed to consider them synonymous had not MM. Saemann, Triger, and E. E. Deslongchamps assured us (in a paper read before the Geological Society of France on the 16th of December 1861) that the original specimen upon which Brocchi had founded his *T. biciplicata* was derived from the Jurassic period. I, however, quite concur with what M. E. E. Deslongchamps subsequently stated, at p. 136 of his excellent monograph of the Jurassic Brachiopoda of France, viz. that the imperfect preservation of the beak of Brocchi's original(?) example of *T. biciplicata*, as well as the uncertainty connected with its origin, makes it desirable that the terms *T. biciplicata* and *T. indentata*, as applied by Sowerby, should be retained, and that the nomenclature should not be

Our difficulties do not here terminate; for, if we open Bronn's 'Index Palæontologicus,' we find *T. grandis*, Blum., *T. giganteus*, Schloth., *A. ampulla* and *A. sinuosa*, Brocchi, *T. Pedemontana*, Lk., *T. fragilis*, Kön., *T. spondyloidea*, Smith, *T. perforata*, Def., *T. variabilis*, Sow., *T. Sowerbyana*, Nyst, and *T. bisinuata*, Lk. (all from the Tertiary formation) given as synonyms of a single species, for which Blumenbach's name "*grandis*" is retained. It is quite evident that, if all the shells above named are not mere modifications of a single very variable species, they are at any rate very nearly related forms, and have not yet been distinguished in a satisfactory manner.

M. Meneghini of Pisa and Prof. Sequenza of Messina, who have both had ample opportunities of studying the shell under description, would feel disposed to consider it specifically distinct from *T. grandis* and *T. ampulla*, but at the same time are ready to admit that it is at times difficult to separate certain forms of *T. ampulla* and *T. sinuosa*. Brocchi himself describes a variety of *T. ampulla* in the following words:—"plicis eminentioribus, margine inferiore sinuata," which shows that one variety or modification in shape of his *T. ampulla* was, according to that naturalist, biphicated. Both the learned Italian Professors above named are, however, of opinion that *T. grandis* and *T. ampulla* are more uniformly convex and globose, and that they differ also slightly from *T. sinuosa* in the details of their loop (?).

It is, however, very possible, and even probable, that *T. sinuosa* is nothing more than a biphicated variety of *T. grandis* or of *T. ampulla*; and it was registered under the last-named denomination by the late Prof. E. Forbes and by Capt. Spratt in their descriptions of the geology and fossils of Malta. The reason why I have here retained the term *T. sinuosa* in preference to *T. ampulla* is, that, having examined a large number of middle-aged examples from Tuscany as well as from Malta, I found them all so extremely biphicated, that they differed in this respect so materially from similar specimens of *T. grandis* and *T. ampulla* I have been able to examine, as to have made me question the propriety of at present classing them all under a single denomination. It will remain also still to be determined whether the parent form may not have existed in the Cretaceous or Jurassic period; but we may at any rate assert that we are not acquainted

thrown into fresh confusion by taking away the term *biphicata* from the well-known Cretaceous shell and giving it to the equally well-known *T. indentata*, to which Brocchi's imperfect shell is supposed to belong. Brocchi's name in connexion with *T. biphicata* should therefore in future be completely expunged, and Sowerby's well-known term *biphicata* be preserved for the Cretaceous shell.

with a single recent species which could be referred to the shell under description.

T. sinuosa is a very common fossil in the Miocene strata of the island of Malta, and was found by Dr. Leith Adams in the "Upper Limestone" (No. 1), the "Sand-bed" (2), and the "Marl-bed" (3), but most abundantly among the Coralline portions of the Upper Limestone. The shell is generally gregarious, and is met with in regular beds, but attains its greatest size and perfection in bed No. 1. It is very rare in the nodular vein of the "Calcareous Sandstone" (4), and Dr. Adams has not yet met with it in the "Lower Limestone" (5).

In Italy *T. sinuosa* has been found very abundantly by M. Meneghini in the Middle Miocene of Palazzo in Tuscany, and its occurrence in beds of a similar age in Piedmont has been noticed by M. Michelotti of Turin. In Sicily it has been found by M. Sequenza in the Miocene beds of Messina; and I believe I have seen specimens from Algeria.

2. *Terebratula minor*, Philippi. Pl. I. fig. 8.

T. vitrea, var. *minor*, Philippi.

T. minor, Suess, Ueber die Wohnsitze der Brachiopoden (1859), and Dav. Ann. & Mag. Nat. Hist. for July 1861.

Sp. char. Shell small, ovate, nearly straight in front. Valves almost equally deep, uniformly and tumidly convex, without fold or sinus. Surface smooth, marked only by concentric lines of growth. Beak small, incurved and truncated by a small circular foramen; deltidium small, proportions variable. Length 5, width 4, depth 3 lines.

Obs. The correct determination of this small shell is subject to some difficulties. It exactly resembles a Sicilian Pliocene example of *T. minor* sent to me by M. Michelotti of Turin, and bears the greatest resemblance to Prof. Sequenza's *T. affinis*.

The specific value of Philippi's *Terebratula minor* has, however, been differently viewed by some naturalists. Prof. Suess considers *T. minor* to be distinct from *T. vitrea* (it is, according to my learned Viennese friend, smaller, with stronger valves and blunt margins), and that Philippi has pointed out the differences between the two. M. Sequenza, on the contrary, seems to consider Philippi's *T. minor* as nothing more than a smaller race of *T. vitrea*, and assures me that in the last-named shell and in *T. minor* the loop is exactly the same, that is to say, short and simple, the two riband-shaped lamellæ being soon united by a transverse lamella bent upwards in the middle.

The Maltese specimens I have been able to examine have all the external shape and character of small examples of *T. vitrea*;

and we cannot be very far wrong, I think, in leaving it with *T. minor*.

I am informed by Dr. Adams that this species (in Malta) is peculiar, seemingly, to the point of transition between the "Lower Limestone" (5) and the "Calcareous Sandstone" (4), and occurs there along with *Thecidium Adamsi*. It has also been recently found by Dr. Adams in great abundance in the "lowest Limestone" in Gozo. Dr. Adams informs me also that this is no doubt the small *Terebratula* referred to by Capt. Spratt, in his valuable memoir on the geology of Malta and Gozo, as having been discovered by Earl Ducie when studying the geology of Malta for his geological map of that island.

T. minor occurs in the Miocene, Pliocene, and Pleistocene deposits of Sicily; and both it and *T. vitrea* live near the shore of that island.

3. *Terebratulina caput-serpentis*, Linn. sp. Pl. I. fig. 9.

Anomia caput-serpentis, Linn. Syst. Nat. p. 1153.

I can perceive no difference between the Maltese Miocene shell and those which occur in the Mediterranean. Dr. Adams informs me that the shell under notice is found (although rarely) in the "Calcareous Sandstone" (4). In Piedmont and Tuscany it occurs in the middle and upper Miocene, and in the Miocene, Pliocene, and Pleistocene of Sicily. I may also here mention that the British Museum possesses specimens from the Miocene of Gibraltar.

4. *Megerlia truncata*, Linn. sp. Pl. I. fig. 10.

Anomia truncata, Linn. Syst. Nat. p. 1152.

This species occurs along with *Argiope decollata* in the uppermost bed of the "Upper Limestone" (1) as well as in the "Sandbed" (2) in the island of Malta, and is also found recent in the Mediterranean.

M. truncata is a common species in the middle and upper Miocene as well as in the Pliocene and Pleistocene of Italy and Sicily. It occurs also in the Miocene of Gibraltar.

5. *Argiope decollata*, Chemnitz, sp. Pl. I. figs. 11, 12.

Anomia decollata, Chemnitz, Conch. Cab. vol. viii. p. 96, pl. 78. fig. 705, a to d.

Anomia detruncata, Gmelin.

Perfectly characterized specimens, agreeing with the recent species now living in the Mediterranean, occur along with *Megerlia truncata*, in the "Uppermost Limestone" (1 B) and "Sandbed" (2) of the Island of Malta. It is evidently the species named *Orthis detruncata* by Prof. E. Forbes in his "Note on the

Maltese Fossils" (Proc. Geol. Soc. vol. iv. No. 97), and appended to Capt. Spratt's memoir on the geology of the island.

A. decollata is also common in the middle and upper Miocene beds of Piedmont and Tuscany, but is rare in the Pliocene of Sienna; it occurs in the Pleistocene beds of Messina.

6. *Thecidium Adamsi*, Macdonald. Pl. I. fig. 13.

Thecidium Adamsi, J. D. Macdonald, Quart. Journ. Geol. Soc. vol. xix. p. 517 (1863); Davidson in Longman's Geol. Mag. for July 1864.

As this interesting little species has been recently correctly described and figured in detail by myself in 'Longman's Magazine,' all we need now repeat is that the shell occurs in great abundance in the upper portion of the "Lower Limestone" (5), and it is usually associated with *Orbitoides*, *Cidaris*, *Echinus*, *Scutella*, and other forms characteristic of the situation, and apparently never found in any of the superincumbent beds.

7. *Rhynchonella bipartita*, Brocchi, sp. Pl. I. fig. 14.

Anomia bipartita, Brocchi, Conchiologia Fossile, vol. ii. p. 466, pl. 10. fig. 7 (1814).

T—, Def. Diet. Sci. pp. 156, 182; Philippi, Enumeratio Molluscorum Siciliae, vol. ii. tab. 18. fig. 5.

Terebratula incurva, Von Buch, Ueber Terebrateln, tab. 2. fig. 40 (1834).

Sp. char. Shell of a somewhat globosely triangular shape, generally rather wider than long, while at times the length slightly exceeds the width. Dorsal valve deeper and much more convex than the opposite one; mesial fold wide and apparent only towards the front. Ventral valve moderately convex, with a wide, square-shaped, shallow sinus beginning towards the middle of the valve and extending to the front. Beak acuminate, acute, incurved, leaning considerably over the umbo, with an elongated foramen extending from under the extremity of the beak to the umbo, and almost entirely surrounded by a deltidium. The surface is usually smooth, but on some specimens a few short ribs appear towards the frontal and lateral margins, while concentric lines of growth cover the surface. Length and breadth about equal. One Maltese specimen measured 10 lines in length and breadth, 7 in depth; but it attains larger proportions in other localities.

Obs. This very variable shell is stated by Dr. Adams to be common enough, along with *Megerlia truncata* and *Argiope decollata*, in the "Upper Limestone" (1), but is difficult to obtain entire. In Italy it occurs abundantly in the upper Miocene and Pliocene of Tuscany. In the island of Sicily it is common in the Miocene of Palermo; but, according to Prof. Sequenza, is less abundant in that of Messina.

EXPLANATION OF PLATE I.

- Figs. 1 to 7. *Terebratula sinuosa*, Brocchi; different ages and variations in form. 7. Interior of the dorsal valve of a small specimen.
Fig. 8. *Terebratula minor*, Philippi.
Fig. 9. *Terebratulina caput-serpentis*, Linn. 9 a. Enlarged illustration.
Fig. 10. *Megerlia truncata*, Linn. 10 a. Enlarged.
Figs. 11, 12. *Argiope decollata*, Chemnitz. 11 a. Enlarged figure.
12. Enlarged interior view of the dorsal valve.
Fig. 13. *Thecidium Adamsi*, Macdonald. 13 a, b. Enlarged figures.
Fig. 14. *Rhynchonella bipartita*, Brocchi.

II.—Contributions to an Insect Fauna of the Amazon Valley.

COLEOPTERA: LONGICORNES. By H. W. BATES, Esq.

[Continued from vol. xiii. p. 164.]

Genus HYLETTUS, nov. gen.

Body elongate-oblong, more or less depressed, free from setæ. Head, as in all the allied genera, much narrower than the thorax, with the antennæ approximated at the base; muzzle short and obtuse; lower lobe of the eyes subquadrate. Antennæ greatly elongated, sparingly furnished beneath with short bristles. Thorax uneven on the surface; lateral tubercles prominent and placed near the middle of the sides. Elytra without smooth lateral keels proceeding from the shoulders. Sterna simple. Terminal abdominal segment in the males with both dorsal and ventral plates notched or emarginated. Ovipositor of the female elongated, tubular; dorsal plate pointed, ventral truncated. Legs moderate; thighs clavate, thickly so in the males; basal joint of the posterior tarsi as long as, or longer than, the two following taken together. Fore and middle tarsi in the male dilated and fringed with hairs.

The chief character which distinguishes this group from *Nyssodrys* is the dilatation and ciliation of the anterior and (in less degree) of the intermediate tarsi in the males. Some of the larger species of *Nyssodrys* have the male anterior tarsi much broader than those of the hind legs, but in none of them are they furnished with the marginal fringe of hairs. The *Hyletti* are somewhat larger insects than the *Nyssodryes*, and the shape of their thorax is somewhat different, the lateral spines being in the form of large or distinct tubercles, and placed near the middle of the sides. The genus approaches *Acanthocinus* and *Graphisurus* (groups characteristic of North America and Europe) nearer than any we have yet passed in review.

Hylettus cænobita, Erichs.

Leipus cænobita, Erichson, Consp. Ins. Col. Peruana, p. 145.

“*L. fuscus*, dense cinereo-tomentosus, supra flavo irroratus, scutello